State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

MARK N. MAURIELLO
Acting Commissioner

May 8, 2009

Glen Howarth
Delphi Facilities Services Group Director of Global Operations, North America
Delphi Automotive Systems LLC
5825 Delphi Drive
M/C 480-410-186
Troy, MI 48098

NOTICE OF DEFICIENCY

Re: Remediation Agreement In the Matter of the New Brunswick Site Delphi Energy and Chassis Systems and Delphi Automotive Systems LLC
Responsible Party: Delphi Automotive Systems LLC (Delphi)
760 Jersey Avenue, New Brunswick, Middlesex County
ISRA Case #E20060211
SRP PI# 001849
Preliminary Assessment Report (PAR) dated June 30, 2006
Site Investigation Report (SIR) dated December 18, 2006
Remedial Investigation Report (RIR)/Remedial Investigation Workplan (RIW) dated January 30, 2007
Supplemental Remedial Investigation Report dated July 27, 2007
NJDEP Site Inspection conducted on July 17, 2008

Dear Mr. Howarth:

The New Jersey Department of Environmental Protection (NJDEP) has reviewed the above referenced documents which were submitted pursuant to the Industrial Site Recovery Act regulations at N.J.A.C. 7:26B; the Remediation Agreement executed on July 26, 2006 and the Technical Requirements for Site Remediation (TRSR) at N.J.A.C. 7:26E.

A. Deficiencies

The NJDEP has completed its review of the above referenced submittals and identified the following deficiency:

Failure to submit a RIW pursuant to the Remediation Agreement item I.1.A.

B. General Comments

1. Delphi shall note that NJDEP's review time was increased because the submissions were not prepared pursuant to the TRSR.

2. Delphi shall submit revised figures for each area of concern (AOC). The revised figures shall:

a. ensure that that all submitted maps and diagrams are prepared pursuant to the TRSR at N.J.A.C. 7:26E-4.8(d).
b. have scaled AOC maps keyed to a site wide base map. The scaled site maps shall include the former building footprints, AOC features, sample locations, contaminant concentrations and sample depth. The scale of these figure shall be 1 inch (") = 20 feet ('). Delphi shall note that sample location markers that are a quarter of an inch on a map scale of 1"=60' is unacceptable.
c. include a legend that itemizes all abbreviations and figure notations.
d. include proposed locations for horizontal and vertical delineation.

3. Delphi shall submit revised tables which compare the analytical results to the NJDEP's current residential soil remediation standards (RSRS), non-residential soil remediation standards (NRSRS) and impact to ground water soil screening levels (IGWSSL) for soils data and to the NJDEP's Ground Water Quality Standards (GWQS) for ground water data. Delphi shall note that former non-residential direct contact soil cleanup criteria (NRDCSCC) that the sample results were compared to have expired.

4. Delphi shall note that multiple analytical results have elevated method detection limits (MDLs) that are above the RSRS. Additionally, Delphi is required to submit a copy in the report of the laboratory data sheets with the chain of custody, the non-conformance summary sheet or the table cross referencing the laboratory numbers to Delphi's sample number. Delphi shall revise all tables and figures that the MDLs exceeded the RSRS for non-detect (ND) samples, for example Sample X was ND @ 5.1 ppm MDL.

5. For all future submissions, Delphi shall ensure that each AOC is discussed in its entirety in one area of the report (i.e. one section per AOC that covers the AOC history, current investigation and proposed remedial investigation and/or remedial action).

6. The PAR lists chemicals used on site and from the hearing on June 16, 2006, In re Delphi Corporation, et al. Debtors, Chapter 11 Case #05-44481 (RDD) Jointly Administered document there is a list of raw materials. Delphi's list of on site chemicals lists generic identification for example wastewater treatment chemicals. Delphi has only submitted 2 Material Safety Data Sheets (MSDS) sheets, for caustic soda and sulfuric acid. Delphi shall submit a complete list of chemicals used at site and all Material Safety Data Sheets (MSDS) sheets for them. If Delphi lists generic names for chemicals, Delphi shall cross reference the chemical to the appropriate MSDS sheets.

7. Delphi limited the contaminant analysis to lead (Pb) for the majority of the AOCs. Delphi did not provide any justification for the limited analysis. As Delphi has not provided a detailed site history and past practices, the limited sampling is unacceptable. Battery manufacture can utilize many materials in conjunction with Pb, including cadmium (Cd), nickel (Ni), zinc (Zn), antimony (Sb), tin (Sn), calcium (Ca), selenium (Se) and Mercury (Hg). Additionally, there could have been cleaning of the metal plates with solvents.

   A Google search of the web revealed that lead paste used to make battery plates also contains carbon black (produced by the incomplete combustion of heavy petroleum products), blanc fixe (barium sulfate) and lignosulfonate.

   Delphi shall note that the initial sampling at the manufacturing associated AOCs should have been sampled for priority pollutant list with forward library search (PP+40). Please see the specific AOCs below for requirements.

8. Delphi shall note that all boring logs were not submitted. Delphi shall submit **all** boring logs.

9. Delphi shall submit information on how the furnace has been fueled since the 1940s. Delphi shall clarify if oil, coal, coke or other sources of fuel have ever been utilized at the site to fire the furnace. If other sources of fuel have been employed, Delphi shall investigate the storage locations.

10. Delphi indicates only one underground storage tank (UST) was registered and delisted, this is AOC-3. Delphi shall register and delist all USTs that have not been registered prior with Bureau of Underground Storage Tanks (BUST).

C. Site Specific Comments

1. AOC-1: Lead Contamination in Soil

Delphi states that in 1983 and 1984 random sampling conducted of the surface soil and at 1' bgs yielded results for Pb of 52 to 3,700 ppm in the surface samples and notes exceedances in the 1' bgs (below ground surface) for Pb. Delphi shall clarify how many samples were collected and the results compared to the RSRS. Delphi shall provide a figure with the sample depth, sample location, contaminant concentration.

The June 20, 1996 NJDEP letter from BUST states that the no further action (NFA) (currently known as AOC-3) applies to the UST only. On page 2 the letter states the Pb contaminated soil above the residential direct contact soil cleanup criteria (RDCSCC) is due to site activities and not the UST. The letter further states that the company is required to investigate the Pb contamination. Delphi shall include all the Pb contaminated soil samples from the investigation/remediation of AOC-3 in AOC-1. Delphi shall also include the samples listed in the chart below in revised figure.

Pb exceedance at AOC-3		
Location	Depth	Pb Exceedance
E1-SCB	12' bgs	950 ppm
E1-NCB	12' bgs	420 ppm
SB-E1-4	2' bgs	970 ppm
AE-2	4' bgs	550 ppm
AE-5	3.5' bgs	3,200 ppm
AE-6	3.5' bgs	530 ppm
AE-7	3.5' bgs	790 ppm

During the PAR, SIR, RIR and Supplemental RIR, Delphi investigated AOC-1 and took multiple rounds of samples. Delphi compared the results to the NRDCSCC only. Delphi's delineation samples were collected only if the result exceeded the NRDCSCC. This is unacceptable. Delphi shall compare all results to the RSRS and the IGWSSL and submit a proposal to delineate the contamination to the RSRS and the IGWSSL. Additionally, Delphi shall propose to sample for PP Metals, BNs and VOCs.

Delphi proposes to excavate GP-0129 and GP-0132 and collect post excavation samples. Delphi's proposal is unacceptable because of the limited analytical parameter proposed and since the proposal does not cover the other exceedances at this AOC.

Pursuant to N.J.A.C. 7:26E-3.7(d)4, Delphi shall propose to collect a ground water sample.

Delphi shall note that the current default IGWSSL for Pb is 59 parts per million (ppm). Delphi shall note that if a site specific impact to ground water number is requested, it shall be completed for each AOC, as acids were used at the site.

2. **AOC-2: Former #6 Fuel Oil Underground Storage Tanks (USTs)**

Delphi states that these 3 USTs were located beneath the #6 Fuel Oil Aboveground Storage Tanks (ASTs). Delphi shall note that since the #6 Fuel Oil AST was not investigated as an AOC, AOC-41 has been created. Delphi shall refer to AOC-41 below for requirements on the AST.

Delphi shall provide the capacity of each of the USTs and a figure of where the USTs are located. The figure shall also include the piping runs. Delphi states that there were two spills (#85-12-11-02C and #86-05-21-08C) associated with the UST operations. Delphi stated the USTs were closed in 1988, but no documentation on the closure is available. To address the spills, Delphi installed borings and collected surficial soil samples. Delphi's sampling is unacceptable. Delphi has not detailed where the spills occurred in relation to the sampling conducted or provided rational to why sampling was conducted at a distance (GP-0201 collected 60 feet away). Additionally, Delphi's proposal for NFA is unacceptable as no investigation of the USTs or the associated piping was conducted. Delphi shall submit a proposal for the investigation and closure of the USTs and associated piping. Delphi shall submit a figure that outlines the historic spill locations and the sampling conducted.

Delphi shall propose to install a monitoring well down-gradient and within 10' of the current No. 6 Fuel Oil AST/former No. 6 Fuel Oil UST Area to document ground water quality.

3. **AOC-3: Former Gasoline UST #0018498**

Delphi shall perform an order of magnitude analysis. Delphi shall refer to AOC-1 for requirements on the Pb exceedances documented at this AOC.

4. **AOC-4: Former 5,000-gallon Gasoline UST**

Delphi states that this UST was removed during the 1970s during construction of one of the two sections of the battery case warehouse, but that there was no information found regarding the closure of this UST. To investigate ground penetrating radar was used, but interference was encountered at 3' bgs. Delphi installed a monitoring well, MW-8, to document groundwater quality down-gradient of the former UST location. The location Delphi placed MW-8 is unacceptable to monitor/assess environmental impacts from AOC-4. The ground water contour maps indicate MW-8 is side-gradient of the former UST and as the original UST location is unknown, MW-8 may be 80' away from the AOC.

Delphi shall submit a proposal to investigate the UST and any associated fill lines. Delphi shall review any/all historic files to locate the UST. Additional, Delphi shall submit a proposal to collect a ground water sample in the immediate vicinity of the former UST.

5. **AOC-5: Former #2 Fuel Oil UST**

Delphi's initial investigation of this former UST was to collect soil samples for total petroleum hydrocarbons (TPHCs). Sample GP-0501 (0.75-1.25' bgs) contained 13,900 ppm TPHC. Delphi continued with the delineation; however, horizontal delineation in the south, southeasterly direction has not been completed. Delphi collected the delineation samples for TPHC and VOCs. Delphi shall note that for #2 fuel oil and diesel fuel oil discharges being remediated using the 5,100 mg/kg criterion, the NJDEP is replacing the requirement to sample for volatile organic compounds plus 15 tentatively identified compounds with a requirement to analyze for naphthalene and 2-methylnaphthalene only. Delphi shall

propose to analyze the samples for naphthalene and 2-methylnaphthalene in addition to TPHC. Delphi proposed to conduct a remedial action at this AOC; however, no details were provided.

To investigate the UST, suspected fill lines that were exposed in a test pit. The pipes were oriented toward AOC-8. A second test pit was excavated along, near the pipes. A vault wall was discovered, however this was not included on the figure. Delphi believes that the UST has removed and that the UST was in the vault and when it was removed the vault was filled with pea gravel. Pea gravel was noted during the excavation of second test pit.

Delphi indicated that the pipes are steam heating and condensate return lines and that the pipes never ran to a UST. Delphi states that the steam was decommissioned when the new gas fired ceiling mounted system was installed. Delphi shall explain why heating lines were outside of the building, where did the pipes terminate and what building were the pipes providing heat for.

Delphi provides no proposal for the UST. Delphi shall submit a figure that depicts the USTs location, piping run, the vault wall and the test pits. Delphi shall submit a proposal to investigate the UST. Delphi states that the UST was located in the vault, but no samples were collected in this area. Pursuant to N.J.A.C. 7:26E-3.7(d)4, Delphi shall propose to collect a ground water sample.

Delphi shall note that the TPHC direct contact human health based criterion is 5,100 mg/kg for #2 fuel oil and diesel fuel oil and the ecological screening level is 1, 700 mg/kg.

6. **AOC-6: Process Sumps, Pits, Trenches and Piping Vaults**

Delphi states wastewater is collected and carried by overhead piping from 2 trenches, 13 sumps, over 25 pits and 8 pumping vaults (also known as lift stations) to the wastewater treatment plant. Delphi states that Pb and acid are transported by this system.

Delphi states that the integrity of the features was investigated and cleaned out as necessary. Delphi states that no other cracks or damage was observed in any other trench, sumps, pits or pumping vaults and proposes no further action. Delphi's proposal is unacceptable. Delphi's hand written logs note that oily water, trash and that liquids were entering the features. During the NJDEP Site Inspection all features observed had oily substances, debris, staining, unknown liquids, etc in the features. Delphi's figures are vague and do not show all the features or the connections to each other. Delphi shall submit an as-built diagram of all pits, vaults, lift stations, trenches, sumps, below grade piping and the overhead piping system. Delphi shall also submit the as-built diagram of the sanitary/waste water/ storm water system. Each feature shall have its own unique designation and be cross referenced on the figure. Delphi shall submit a proposal to clean out each feature, document the integrity and submit a proposal for sampling. Sampling analysis shall include BN+15, VOCs, and Priority Pollutant Metals (PP Metals). Delphi has proposed NFA for features where the photo-documentation showed liquid within the feature. This is unacceptable, as it is impossible to determine integrity.

Delphi shall propose to install a monitoring well in the immediate vicinity of GP-1601 and GP-1602 (pumping vault #6). Sample analysis shall include PP Metals and VOCs pursuant to N.J.A.C. 7:26E-4.4(a).

Based on the narrative there should be 13 sumps. Delphi only itemized 8 locations in the field log. Delphi shall clarify this discrepancy. Delphi states there are only 2 trenches in the text and itemizes more than 2 in the field log. Delphi shall clarify and itemize all trenches. Delphi shall also identify which AOC the Lead Oxide Trench discharges to. Delphi states there are over 25 pits on site but only one, the Lead Oxide Pit, is mentioned. Delphi shall clarify which AOC the Lead Oxide Pit discharges to. The lift stations shall be

clarified and itemized. Delphi shall clarify why the plastic injection machines (labeled case and cover) have not been covered in the narrative, there are 14 listed on the field log. It appears that each case and cover at the machine is composed of a sump and a trench system. Delphi also mentions the feature at AOC-32, a hydraulic lift. Delphi shall document this feature.

7. **AOC-7: Former Acid AST System**

Delphi states that the 4 fiberglass and 2 carbon steel sulfuric ASTs are located outside of the acid house in secondary containment. The secondary containment is a concrete impoundment with an acid brick floor. Delphi states the brick is degraded. Delphi collected samples and proposes no further action. The proposal is unacceptable. Delphi shall submit a proposal to delineate GP-0702 to the RSRS and the IGWSSL. Sample analysis shall include PP+40. Pursuant to N.J.A.C. 7:26E-3.7(d)4, Delphi shall propose to collect a ground water sample. Sample analysis shall include VOCs and PP Metals. Delphi shall provide a figure that shows the location of each AST. Delphi shall clarify the capacity of each of the ASTs.

During the NJDEP site inspection the containment was filled with liquid. Delphi shall clarify why there is liquid in the containment and what the liquid is.

8. **AOC-8: Acid Mixing Area**

Delphi states that there are twenty 2,000-gallon ASTs inside the building and four 11,000-gallon ASTs outside. Delphi states that the containment floor is acid brick. Beneath the 2 ASTs it is concrete. Delphi also states that the brick is degraded. Delphi shall note that during the NJDEP site inspection the containment was filled with a liquid. Delphi has not provided a figure that accurately depicts the locations of each AST, the containment structure and the sample locations.

Delphi conducted soil sampling for Pb and pH and delineated to the NRDCSCC. The samples collected appear to be collected within the building. Delphi shall submit a proposal to delineate all contaminant exceedances to the RSRS and the IGWSSL. Delphi shall clarify if a neutralization agent was applied to this area as the pH is higher than 7 (8.33 to 10.28). Delphi shall clarify how the acids were moved in the building to make the sulfuric acid blends and how they were transported to the manufacturing area.

Delphi shall submit a proposal to investigate the ASTs located on the exterior of the building. Sample analysis shall include PP+40.

Pursuant to N.J.A.C. 7:26E-3.7(d)4, Delphi shall propose to collect a ground water sample. Sample analysis shall include PP Metals and VOCs pursuant to N.J.A.C. 7:26E-4.4(a).

9. **AOC-9: Former Lead Reclaim Area**

Delphi collected samples for Pb only. Delphi's proposal for NFA is unacceptable as delineation is incomplete. Delphi shall submit a proposal to delineate to the RSRS and IGWSSL. Sample analysis shall include PP+40.

Pursuant to N.J.A.C. 7:26E-3.7(d)4 and N.J.A.C. 7:26E-4.4(a), Delphi shall propose to collect a ground water sample. Sample analysis shall include PP Metals, VOCs.

10. **AOC-10: Historical Storage of Materials**

Delphi states that only non-hazardous quarry material was stored in the area from 1962 to 1974. Delphi shall provide clarification on the status of the area after 1974 and provide explanation on what the quarry stone was utilized for. Delphi shall clarify what limerock is, and whether it is an uncommon/alternative name for limestone.

11. AOC-11: Railroad Tracks

Sulfuric acid and Pb have been delivered by rail. Delphi shall submit a proposal to investigate the railroad tracks. Sample analysis shall include PP+40.

12. AOC-12: Former Wastewater Neutralization Area

Delphi states that the tank neutralized acidic wastewater by addition of limerock. Delphi shall clarify where the neutralized acid wastewater was discharged to prior to 1976. Delphi shall clarify how metals were treated in the waste water. Delphi shall clarify if this was constructed, was there a below grade portion and an above grade portion. Delphi shall diagram the piping runs to and from AOC-12.

Delphi states sampling was not conducted due to utility obstructions. Delphi proposes NFA based on the concrete is assumed intact and that a ground water sample collected from MW-6 is clean. Delphi's proposal is unacceptable. Delphi shall submit a revised figure that identifies where AOC-12 is and provide the as-built diagram for the piping and the as-built diagram of the utilities. MW-6 is over 120' away from the general vicinity of the AOC. Delphi shall submit a proposal to investigate the structure and piping lines. These lines probably contain metals, and potential VOCs. All proposals shall include the sample analysis for PP+40. Additionally, this neutralized acid waste water could have been pumped to outfall 001 and 002. Delphi shall submit proposals for the investigation of these outfalls, please see AOC-40 and AOC-42. Pursuant to N.J.A.C. 7:26E-3.7(d)4 and N.J.A.C. 7:26E-4.4(a), Delphi shall propose to collect a ground water sample.

13. AOC-13: Silos

The investigation/remediation of AOC-13 has been completed at this time. A No Further Action/Covenant Not To Sue will be issued for the industrial establishment at the completion of the ISRA case and after the filing of any applicable institutional controls.

14. AOC-14: Former Suspected Fill Area

A clay lined pit (12'x15'x3') was located in the eastern corner of the site that was used from the mid-1950s to 1961 to dispose waste paint and paint sludge. Delphi shall provide an explanation of what industrial process was occurring on site to generate approximately 4,039 gallons of waste paints.

Delphi has not provided the location of the AOC on a figure in relation to the soil samples collected. Delphi's first 3 boring logs do not indicate any clay, Delphi shall clarify if the surface samples were collected outside the pit and provide the distance from the pit. Additionally, the boring logs for GP-1404 to GP-1406 were not submitted. Delphi shall amend the boring logs to include the photoionization detections (PID) readings.

Delphi shall clarify if the pit was ever excavated and backfilled or if the pit was abandoned with the waste paint and paint sludge in it. As the upper layer was repeatedly burnt, Delphi shall clarify why soil samples for VOCs were not collected pursuant to N.J.A.C 7:26E-3.6(a). As paint can contain metals and base

neutrals, Delphi's analytical parameter choice is deficient. Based on the location of the pit, Delphi shall submit a proposal for the investigation of this AOC with the analytical parameters of PP+40.

Delphi proposes to install MW-7 in this area. Delphi shall submit a figure that identifies the proposed MW in relation to the dimensions of the AOC and ground water flow direction.

15. AOC-15: Site-Wide Groundwater

a. In Section 1.2 of the Supplemental RIR, Delphi states that there are no potable wells within 1,000 feet of any on-site AOC. In Table II, Delphi references as a summary of the well search, no potable wells are indicated. Delphi states that approximate locations of potable wells are indicated on Figure 8. Figure 8 identifies roughly 25 well locations, but it is unclear if these are truly potable wells. Also, the wells are numerically identified, but it is unclear as to what the identifiers are keyed to. As the number system does not appear to be the same as on Table II, nor do they appear to be keyed to the well logs in Appendix B. Delphi shall clarify the well search.

b. Delphi shall submit stratigraphic logs for MW-EW1, MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6.

Delphi shall submit a table that summarizes the status and construction of all of the wells. The table shall include the well status, well identification, date of installation, top of casing elevation, ground surface elevation, total depth, screen/open-hole length, the depth of the top of screen/open-hole from the top of casing. The table shall also be included the State Plane coordinates of each of the wells.

c. Delphi shall clarify if any borehole imaging or other geophysical logs such as temperature, conductivity, and heat pulse flow meter have been conducted. If it has not been done, Delphi shall propose to run temperature, conductivity, and caliper logs in the bedrock wells. Delphi shall also propose to log the wells with an optical televiewer and use a heat pulse flow meter to document vertical gradients.

Using a combination of literature and site specific data, Delphi shall submit a conceptual site model for groundwater flow and contaminant migration. The NJDEP recommends that Delphi review the files of other environmental sites in the area, such as Gary Screw Machine (ISRA #E89378) and Laser Diode (#E86867).

The conceptual site model shall include cross-sections parallel and perpendicular to the strike of bedrock, based upon bedrock structure obtained from literature and the data collected from Delphi's own on-site evaluation. To aid in developing a conceptual site model, Delphi is referred to the articles "A Practical Approach to Bedrock Aquifer Characterization in the Newark Basin" by Andrew Michalski and "Hydrogeological Framework of Bedrock Aquifers in the Newark Basin" by Gregory Herman in Geology in Service to Public Health, Field Guide and Proceedings of the Eighteenth Annual Meeting of the Geological Association of New Jersey.

Based upon its conceptual site model, Delphi shall propose wells to delineate the contaminant plumes and source areas identified at the site. Delphi shall also conduct a background ground water quality investigation in areas where Delphi believes there is an off-site contaminant contribution, as specified by N.J.A.C. 7:26E-3.7(g).

Delphi shall submit a map that clearly identifies all source areas at the site. Delphi shall submit isopleth maps for the groundwater contaminant concentrations consistent with N.J.A.C. 7:26E-4.8(d).

d. Delphi proposes the installation of four additional bedrock wells. NJDEP recommends that the installation of the proposed wells be delayed until a conceptual site model for groundwater flow and contaminant migration is developed.

16. AOC-16: Acid Sludge Pit
AOC-17: Acid Return Pit

The NJDEP assumes AOC-16 and AOC-17 are co-located, but the figures submitted by Delphi do not depict the AOCs. Delphi shall provide an AOC-specific figure that has a scale of 1"=20', depicts AOC- 16 and AOC-17, the sample results the sample depths and contaminant concentrations compared to the RSRS and the IGWSSL. The trench wall collapse in AOC-6 is located near these AOCs and Delphi shall locate the trench (AOC-6) and AOC-16 and AOC-17 on a figure.

Delphi shall clarify how AOC-16 and AOC-17 are related. Delphi states that AOC-16 collects lead oxide sludge and wash water from a machine located directly overhead of the AOC-16. Delphi shall clarify the disposition of the liquid, does it get transferred to the Waste Water Treatment Plant, AOC-21. Delphi states that AOC-17 is a 930-gallon reinforced concrete pit that is acid brick lined that encloses a fiberglass acid tank. The acid tank collects used Pb contaminated acid from the battery charging process. Delphi also states that the acid travels by an acid brick lined trough from the battery charging area to the acid tank. Delphi states spills/overflow are contained in the pit and then pumped to the AOC-21. Delphi shall clarify if this trench is covered under AOC-6 above.

Sampling conducted at AOC-16 for both AOCs is unacceptable. It can not be determined if the sample locations were appropriately chosen, based on the figures submitted. Additionally, Delphi's limited analysis is unacceptable. Delphi shall submit a proposal to investigate these AOCs. Sample analysis shall include PP+40.

Pursuant to N.J.A.C. 7:26E-4.4(a)3, Delphi shall propose to install a monitoring well to document ground water quality in the immediate vicinity of GP-1601 and GP-1602. Sample analysis shall include VOCs and PP Metals.

17. AOC-18: Former Lead Slag Pad

Black crystalline chunks of Pb slag produced by smelting scrap Pb and emissions from smelter collected by the baghouse were stored on the pad that had no secondary containment. The June 1998 NJDEP's RCRA Facility Assessment Report states that lead plates and lead paste were also stored in this area also. Delphi's proposal for NFA is unacceptable.

Delphi shall propose to investigate this AOC and propose to sample for PP+40. Delphi shall submit a figure that depicts this AOC with a scale of 1"=20'. Delphi shall diagram the pads dimensions on the figure and depict the proposed sample locations.

18. AOC-19: Former Process Wastewater Lift Station

Delphi shall clarify if this tank was an underground or aboveground storage tank. Delphi shall clarify if there was any secondary containment. Delphi shall clarify where the pipes were located that gravity-fed the tank. Delphi shall submit a scaled AOC specific figure that depicts the dimensions of AOC-19, the sample locations and sample results compared to the RSRS and IGWSSL. Delphi's reduced sampling parameters are not acceptable. Delphi shall submit a proposal for the investigation of this AOC. Sampling parameters shall include PP+40.

19. AOC-20: Stormwater Interceptor

Delphi states that untreated runoff flowed directly to outfall 001 and that there is an historic second outfall #0002 that was closed in 2002. Delphi shall investigate the releases to the outfall(s) in the AOC-40 and AOC-42. Delphi states that there have been exceedances of the permit (MCUA and NJPDES) limits for Pb.

In the PAR, Delphi states that the integrity of the interceptor is not known and proposes to investigate. The AOC does not appear to be addressed in the SIR or RIR. Delphi shall submit a proposal to document the integrity of the tank. If the investigation was completed but not submitted, Delphi shall submit the investigation of the Stormwater Interceptor. Delphi shall clarify if the tank is a UST or AST. Delphi shall clarify what outfall #0002 was used for, where outfall #0002 is located and why the discharge to this outfall was ceased.

Delphi shall clarify how the treated and untreated liquid traveled to the outfall(s), overland flow or was it piped to the Mile Run Brook. Delphi shall provide details of the treatment process, what chemical is the water is treated with.

20. AOC-21: Wastewater Treatment Plant

Delphi shall provide the capacity of each of the 3 ASTs. Delphi shall provide an AOC specific figure of AOC-21 that includes the ASTs and the trenching system and the piping that transfers the wastewater from the manufacturing area to the treatment plant. Delphi shall clarify how the liquids within the trench are captured for return to the system, and whether there a sump at AOC-21. If so Delphi shall itemize it and in this AOC and in AOC-6. Delphi shall submit a proposal to investigate the trenches, the ASTs, piping and, if present, any sumps.

21. AOC-22: Stormwater Treatment Plant

Delphi shall provide the capacity of each of the 3 ASTs. Delphi shall provide an AOC specific figure of AOC-22 that includes the ASTs and the piping that transfers the stormwater from the site to the treatment plant. Delphi shall clarify if there are any trenches and/or sumps in this AOC. If not Delphi shall provide a detailed discussion of how spills are handled within the plant.

Delphi states that there have been permit violations where the effluent limit is exceeded. Since the effluent is pumped directly to the Mile Run Brook, Delphi shall provide a figure of the piping system that provides this discharge. Delphi shall submit a proposal to investigate the integrity of the piping system and submit a proposal for the investigation of the outfalls 0001 and 0002.

Delphi shall provide the frequency of the permit testing.

22. AOC-23: Drummed Waste Storage Area
AOC-24: Former Drummed PCB Capacitors Storage Area
AOC-26: Former Rejected Lead Plates Container Storage Area

These three AOCs are co-located. Delphi shall submit an AOC specific figure that identifies the limits/boundaries of each AOC within the area. The figure shall also identify sumps, trenches and piping and where the curbing (containment) is located.

In the PAR, Delphi proposes investigation of the dead sump. The AOC does not appear to be addressed in the SIR or RIR. Delphi shall clarify what is meant by a dead sump. Delphi states that the sump is designed to contain 10% of max capacity of the storage area. However the inventory sheets suggest that they are not designed for this purpose. The PAR discusses a dead sump for all three AOCs, however; AOC-6, the submitted inventory sheet indicates that there are at least 2-3 sumps. The inventory sheets sumps and trenches listed for AOC-23, 24 and 26 indicate the following:

a. 37"x8'x3' poured concrete sump with no liner that handles storm runoff. The inventory sheet states that it discharges to a blind sump and that there is a 13'x1'x1' trench. Trash and sediment is noted at the bottom of 1' sump. Delphi states no cracks are observed.
b. 6'x6'x6' concrete slab construction with no liner that handles storm runoff. Inventory sheet states there is a 10'x1'x1' trench. Trash and sediment in the bottom, but it is not specified if the debris is in the trench or sump. Delphi states there are no cracks observed.

Delphi shall clarify how many sumps are present. Delphi shall provide the dimensions of the blind sump. Delphi shall submit a proposal for the investigation of the sumps and trenches. Delphi shall clarify how integrity was determined if the sumps and trenches contained up to a foot of trash and sediment.

Delphi shall note that if the sumps and trenches handle stormwater only, Delphi shall submit a proposal to investigate the storage pad.

Delphi shall clarify how the rejected lead plates were stored.

23. AOC-25: Wastewater Treatment Sludge Container Storage Area

Delphi states that a curbed concrete pad (22'x38') slopes to a catch basin that eventually drains to AOC-21. A roll off container is located on the pad for filter sludge. Delphi shall clarify how liquid is transferred from AOC-25 to AOC-21. Delphi shall submit a proposal to investigate the catch basin and piping.

24. AOC-27: Underground Chip Conveyor

Delphi states the system collects lead and aluminum chips from the furnace for metal melting. From the furnace it travels underground into a concrete lined trench and then above ground to the chipper. Delphi states that there are trenches and sumps in vicinity, and that there are no cracks or damage and that the conveyer is intact. The inventory sheet, from AOC-6, lists one sump that contained oil and water. Delphi shall propose to investigate the underground conveyer system. Delphi shall submit a proposal to investigate the sump(s), any trenches and/or piping. Delphi shall clarify how a sump's integrity was determined if the sump was filled.

Delphi shall submit an AOC specific figure that depicts the location of the features of this AOC.

25. AOC-28: Oil Reclaim Area

Drum storage of used oil (55-gallon drums) is located on a concrete pad next to the Oil Reclaim Area. The trench that collects oil was installed in 2003 but the area was used prior to trench installation. Any oil in trench is pumped to the oil reclaim unit and Delphi noted staining.

Delphi shall clarify how the recycled oil is pumped outside into a mobile recycling system, and whether the piping below grade or above ground. Delphi shall also clarify how the hydraulic oil located in the trenches that surround the plastic injection molding machines is pumped to the unit for recycling and reuse. If the piping system is located below grade, Delphi shall propose to investigate the piping associated with AOC-28.

Delphi's soil samples are unacceptable. Delphi's figure indicates the samples were collected from around the building not located at the drum storage pad that the samples were not collected at the surface and VOCs were not collected at an appropriate depth. Delphi shall submit a revised AOC specific figure with a scale of 1'=20' scale with all features, sample locations, contaminant concentrations, sample depths and comparison to the RSRS and IGWSSL. Delphi shall submit a proposal to investigate.

Delphi shall amend the boring logs to include the PID readings taken. Delphi shall explain why all boring logs that cored through concrete indicated that purple staining was not identified. Delphi shall explain and clarify why purple staining was being looked for.

26. AOC-29: Oil Storage Room

Delphi shall clarify what the blind trench is, and where does the liquid in the trench discharges. Delphi shall clarify what kind of oil is stored in the 55-gallon drums. Delphi shall clarify the how the diesel and hydraulic oil is utilized at this AOC and how it is transported to its final destination. Delphi shall submit a revised AOC-specific figure that includes the sample location, sample concentration, sample depth and comparison to the RSRS and IGWSSL. Delphi shall clarify why the samples were collected at 1.5-2' and 2.5-3', for a surface spill. Delphi shall propose to re-analyze the sample GP-2901 for hexavalent chromium (Cr^{6+}).

Delphi states in the narrative that 3 samples were collected, but the tables and figure list only 2 samples. Delphi shall clarify this discrepancy. Delphi shall note that the following concentrations exceed the RSRS:

Contaminant	RSRS	GP-2901(ppm)	GP-2902 (ppm)
Total Cr		24.9	23.3
1,4-Dichlorobenzene	5	32 U	31 U
2,4,6-Trichlorophenol	19	49 U	47 U
2,4-Dinitrotoluene	0.7	26 U	25 U
2,6-Dinitrotoluene	0.7	16 U	16 U
3,3'-Dichlorobenzidine	1	86 U	82 U
4,6-Dinitro-2-methylphenol	6	380 U	350 U
4-Methylphenol	31	42 U	26 J
Benzo(a)anthracene	0.6	2.5 U	2.4 U
Benzo(a)pyrene	0.2	2.3 U	2.2 U
Benzo(b)fluoranthene	0.6	0.89 U	0.84 U
Bis(2-chloroethyl)ether	0.4	26 U	25 U
Carbazole	24	30 U	28 U
Dibenz(a,h)anthracene	0.2	2 U	1.8 U
Hexachlorobenzene	0.3	16 U	15 U
Hexachlorobutadiene	6	16 U	16 U
Hexachlorocyclopentadiene	45	54 U	51 U
Indeno(1,2,3-cd)pyrene	0.6	2.1 U	2.0 U
N-Nitrosodi-n-propylamine	0.2	20 U	19 U

Pentachlorophenol	3	63 U	59 U
BN TICs		1,500	6,830

Delphi shall include for all future reports an appendix that includes the laboratory summary sheets, chain of custody, non-conformance summary and the page cross referencing Delphi's sample identifications to the laboratory identifications. Delphi shall note this is separate from and in addition to the QA/QC submission. Delphi shall define the abbreviation U that is used on the tables. Delphi shall submit a delineation proposal. Sample analysis shall include PP+40.

Delphi shall clarify why purple staining was being looked for, as noted in the submitted boring logs.

27. AOC-30: Battery Wet Finishing

In this area the assembled battery is filled with the sulfuric acid and given a full charge (formation process). During the 1980's stainless steel tables were used and Delphi states that it caused a Cr^{6+} issue. To address the issue, tables were removed, sludge was removed and scarification and removal of the concrete flooring was done. Delphi does not present any information that sampling was ever conducted in the area. During the NJDEP site inspection the floor was distressed and the concrete was blooming up. Upon walking on the concrete floor that is distresses it crumbled and had a visual appearance of white pumice. Delphi states that there are 5 sumps located in the area. AOC-6 inventory sheets do not provide any details on these sumps or the trenches located at this AOC. Delphi shall submit a proposal for the trenches and sumps in the area. Delphi shall submit an AOC-specific figure with the proposal.

Delphi states that the floor is covered with acid resistant bricks (poor condition), however; during the NJDEP site inspection no bricks were noted. The samples Delphi collected are unacceptable. Delphi shall submit a revised figure with the sumps, trenches, lift station and tables that are located in the AOC. Additionally, the sample locations, sample results and contaminant concentrations compared to the RSRS and IGWSSL shall be depicted on the figure. Delphi shall submit a proposal for sampling that includes the analysis of PP+40 Cr^{6+}. Delphi shall document the integrity of each sump, lift station and trench. Delphi shall explain why PCBs were analyzed for in this AOC. Delphi shall clarify how the sample locations were chosen. Based on the site inspection and the figure provided by Delphi, the samples are located in an area where there was not as much degradation of the concrete floor.

28. AOC-31: Hydraulic System for Drawbridge

Delphi shall document the integrity of the pit.

29. AOC-32: Hydraulic Lifts for Loading Dock (Receiving)

Delphi states that there are 3 dock bays, two of which are hydraulic and have compactors. Delphi states the hydraulic lifts are located on a cement pad and no signs of staining observed in the soil around the cement pad. Delphi shall submit a sampling proposal for the soils around the pad.

30. AOC-33: Substation

Delphi shall submit a proposal to investigate the transformers. Sampling parameters shall include PCBs and TPHCs.

31. AOC-34: Satellite Accumulation Area (SAA)- Lead Debris Drums near Lead Oxide Area

Delphi shall note that the floor is heavily stained and there is oil within the trenches that have an unknown integrity throughout the area. Delphi shall submit a revised AOC specific figure for this AOC. Delphi shall address any contamination associated with this AOC as part of AOC-6.

32. AOC-35: SAA -Facility Wide Baghouses

Delphi's proposal to investigate fugitive lead dust emissions in soil under AOC-1 is acceptable.

Delphi shall investigate discharges around the bag houses if the baghouse was located outside the building. Baghouses located within the building shall be inspected to document the integrity. During the NJDEP site inspection, an interior baghouse was observed that was a large sub-terrain vault. Delphi states there are 18 baghouses throughout the site, but the figure only identifies one. Delphi shall submit a revised AOC specific figure that identifies each baghouse.

The PAR states that the material from the baghouses are smelted with Pb and in AOC-35 is states that the material is drummed for disposed. Delphi shall document the disposal location of the material.

33. AOC-36: SAA - Drummed Lead Scum from Acid Sump

Delphi shall submit an AOC specific figure that depicts the location of this AOC, the acid sump and any trenching. If the material is removed from an acid sump, drummed and staged on the concrete floor near the sump, it would be acceptable to handle any discharge under AOC-6. Delphi shall specify which sump(s) the Pb is skimmed off of. These drums are transported to AOC-23 and any discharges occurring there from due to this AOC would be investigated under that AOC.

34. AOC-37: Solid Waste Management Unit (SWMU)- Compactors at Receiving Dock

Delphi shall document the paving history of this AOC. Delphi shall submit a proposal to investigate.

35. AOC-38: Fire System Pump House

Delphi shall submit a revised figure that has the AST and fill pipes depicted as well as having a scale of 1"=20', all sample locations, sample depths and contaminant concentrations compared to the RSRS and IGWSSL. Delphi shall clarify the capacity of the AST. Delphi shall submit a proposal to vertically and horizontally delineate the contamination. Delphi shall submit the boring logs for all samples. Delphi shall propose to collect a ground water sample for VO and lead analysis.

36. AOC-39: Storage Area

Delphi investigated the area and delineated GP-3902 horizontally and vertically. Delphi shall submit a revised figure that has the dimensions of the storage area depicted as well as having a scale of 1"=20', all sample locations, sample depths and contaminant concentrations compared to the RSRS and IGWSSL. Delphi shall submit a proposal to collect samples for PP+40. Delphi shall submit the boring logs for all samples collected.

37. AOC-40: Outfall 001

Stormwater is discharged to this outfall. Delphi states there have been permit (MCUA and NJPDES) exceedances for Pb. Delphi shall submit a proposal to investigate the outfall since there have been

exceedances to the permit limits. The stormwater treatment plant, AOC-22, was only installed in 1993 and Delphi documents untreated stormwater was allowed to flow to the outfall after the installation of the AOC-22.

Delphi states that in 1983 and 1984 random sampling conducted of the stormwater had elevated Pb. Delphi shall provide a detailed narrative of this sampling conducted. Delphi shall submit an AOC specific figure that depicts the outfall, and all piping and the Mile Run Brook. See AOC-42 for Outfall #002.

38. AOC-41: AST above AOC-2

Delphi does not specify this as an AOC. During the NJDEP site inspection, the ASTs were no longer present but the containment exterior was stained with what was identified as #6 fuel oil. Delphi shall provide detailed information on how many ASTs were in this area, their capacity, and their contents. Delphi shall submit a proposal for the investigation of the ASTs and the spills associated with the AST.

39. AOC-42: Outfall 002

Delphi does not specify this as an AOC. This second outfall was supposedly closed in 2002. Delphi shall submit a revised figure that depicts the outfall location, and all piping and the Mile Run Brook. Delphi shall provide details of what discharges were directed to this outfall (stormwater or wastewater or both). Delphi shall submit a proposal to investigate this AOC.

40. AOC-43: Baseline Ecological Evaluation (BEE)

Pursuant to N.J.A.C. 7:26E-3.11, Delphi shall propose to conduct a BEE. A BEE shall be completed for each contaminated site or area of concern, be qualitative in nature, and be based upon on site investigation sample results and a site inspection by a person experienced in the use of techniques and methodologies for conducting ecological risk assessments in accordance with EPA guidance. This evaluation shall be used to determine when further sampling and evaluation is required, pursuant to N.J.A.C. 7:26E-4.7. The BEE shall incorporate all of the requirements stated at N.J.A.C. 7:26E-3.11.

41. AOC-44: Vapor Intrusion

Delphi shall submit a proposal to address the potential for vapor intrusion (VI) of the volatile contaminants from the ground water into any overlaying buildings, as outlined in the NJDEP's 2005 Vapor Intrusion Guidance Document. Delphi can find a copy of the guidance document on the web at http://www.nj.gov/dep/srp/guidance/vaporintrusion/.

42. Site Inspection

a. During the July 17, 2008 site inspection, there were at least 2 cylinders that protruded from the floor surface in the building. These features were heavily greased. Delphi stated that they were part of the machinery. Delphi shall investigate/clarify if the features had any reservoir for oil or grease that was located below grade.

b. Delphi shall clarify the function of the trench outside the southwestern wall of the battery storage.

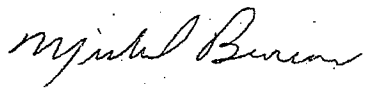
c. Delphi shall document the integrity of the building where AOC-28 and -4 are located. There is a trench and a hole in the floor noted during the inspection.

D. Corrective Actions

At the present time, Delphi shall submit all information required above in a RIW within 30 calendar days after receipt of this letter. Note that deficiencies included herein which are not addressed to the NJDEP's satisfaction within the specified time period will be subject to the provisions of N.J.A.C. 7:26C-3.3(c)2-4 and N.J.A.C. 7:26C-10. To determine whether the uncorrected deficiencies will minor with a period of time to correct or non-minor subject to penalties, refer to the table at N.J.A.C. 7:26C-10.4(c).

If you require copies of Departmental Guidance Documents or applications, many of these are available on the internet at www.state.nj.us/dep/srp. If you have any questions regarding this matter please contact Sylvia Pearce, Case Manager, at (609) 633-1414 prior to the date indicated.

Sincerely,



Michael Buriani, Supervisor
Bureau of Industrial Site Remediation

c: Todd W. Terhune, Wolff & Samson
Joel Fradel, NJDEP/BGWPA
James Hunt, Delphi Automotive Systems LLC